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Head Work for Farmers.

We know some farmers who are hard workers, always busy in their vocation, constantly hitting hard licks through winter as well as through summer, who expend comparatively little on anything for show, who indulge in no fine turn-outs, do but little driving for pleasure on the highways, and are not extravagant in other respects, and yet these men seem always to be in the drag, and can never catch up and be at the front. They are always behind when rent or interest day comes round. The field for corn is not plowed early enough in the spring, or the furrows are turned when they are too wet and so made liable to bake or clod. Crops are not planted in time, not cultivated in time, and often not gathered in time, and so liable to waste. And they wonder how it is that they cannot succeed and become masters of the situation as they see others around them doing, who, apparently, do far less work than they do themselves, and yet get along more easily and comfortably. The secret of it all is a want of system in work, and a failure to look ahead and provide for contingencies, so as to be always ready for them when they happen. System and order are great factors for the ready accomplishment of purposes. They make things go smoothly and prevent a vast deal of worry and vexation of spirit. The farmer needs to be a planner as well as a laborer. Head work is what is wanted just as much as hand work. Tact and maneuvering will sometimes save wages and expense by economizing time and opportunities, and in these times of agricultural depression should be oftener applied.

Potatoes.

These are becoming so fast a staple article of diet, and indeed in so many sections the crop, that a few more words about them may not be out of place. There are various depths to which the potatoes may be planted; thus on a clayey loam in Indiana they were planted on the surface and covered 2 inches deep, planted in furrows 3, 6 and 8 inches deep, and covered to the depth of the furrow. The surface planted yielded at the rate of 216 bushels per acre, 327 at 3 inches, 297 at 6

inches, and 328 bushels at 8 inches. The season was dry.

After this comes the variety to be planted. In Colorado, Stray Beauty, Red Elephant, Grange, Bliss's Triumph, Summit, and Jordan's Russet, proved the most prolific in the order named. In Pennsylvania, College White was the best. In Michigan, Early Ohio ripened first; Chicago Market and Alexander's Prolific were the best of the medium, and White Star the best of the late varieties. In Ohio, Oxford, Puritan Early and Crown Jewel are the most productive of the earlies. Empire State, Summit, Seneca Beauty, White Elephant and Delaware of the medium and late sorts. In Wisconsin, "Seedling from C. E. Angell," Rose Beauty, Monarch, Duplex, Late Beauty of Hebron, Alexander's Prolific, Seneca, Red Jacket, White Beauty of Hebron, and Wisconsin Beauty, were the most productive. For eating, Alexander's Prolific, White Beauty of Hebron, Late Beauty of Hebron, Duplex, Monarch, Wisconsin Beauty, Seneca, Red Jacket, Rose Beauty, Mullaly, Seedling from C. E. Angell, stood in the order named.

As to their profitableness, the Virginia Experiment Station estimates an acre of potatoes at four times that of corn, four times as much as wheat, nearly six times that of an acre of oats, two and two-thirds that of hay, but only worth half as much as one of tobacco.

Should the farmer not have the manure to raise as many potatoes as he wishes to plant, the Arkansas Experiment Station recommends the following fertilizers per acre: 400 lbs. cottonseed meal, 300 lbs. kainit, and 300 lbs. superphosphate; or, 400 lbs. ammonia salts, 300 lbs. kainit, and 300 lbs. superphosphate.

If we estimate cottonseed meal at \$15.00 per ton, kainit at 4½ cents per lb., and superphosphate at \$31.00 per ton, the cost per acre would be \$21.50 for the first, and \$25.50 for the latter. Taking the average yield at 52 bushels per acre, each one knowing their average price in his section, can calculate the probable profit for himself.

In Maryland they were planted at the Experiment Station in 1889, on March 18th and 20th. The temperature for the month was 45.4°, the rainfall 4.47 inches. They were dug August 12th and 14th. The

temperature and rainfall of the growing season was as follows:

	Temp.	Rainfall.
March.....	45.4°	4.47
April.....	54.2	9.20
May.....	63.6	8.48
June.....	70.1	6.80
July.....	74.3	8.75
August.....	70.6	1.78

The average of the highest yielding early variety, Beauty of Hebron, was 185 bushels per acre; of the Empire State, the lowest, 34 bus. Deducting seed, the four varieties yielded 113.7 bus. The cost of fertilizer was: Nitrogen, 67 lbs.; phosphoric acid, 89 lbs.; potash, 78 lbs. per acre, equal to \$18.52 per acre. In Tennessee, first crop potatoes are dug when the hills will average two good marketable potatoes to a hill. They are planted 30 inches each way, two eyes to a hill, so as to get one stalk to a hill. Later potatoes are planted 30 inches apart in drills, 30 inches distant, covered with two furrows, and double the amount of seed used as in spring. The seed, after being duly seasoned in the shade, is split in half from tuber end to seed end, one half planted in a place. It is said that this plan rarely fails, but whole tubers often do. The variety used for second crop there, as well as here, is Early Rose. It is said the size of the tubers may be materially increased by thinning down to two stalks in a place, and by cutting off the blossoms. Certain it is, that here the Early Rose has degenerated in productiveness, and largely increased in blossoms, since its introduction, without reference to their origin, whether from beyond the United States, from Maine, or grown at home.

Corn—No. II.

The origin of corn is involved in uncertainty. The Europeans found it cultivated on both American continents by nearly every tribe of Indians. The same varieties of early and late, of the different colors, white, yellow, red and blue, with their mixtures, existed then as now. It has been stated that all are derived from a single variety that had each grain covered by a single cap and the whole ear enveloped in a shuck as now mentioned in agricultural reports as Rocky Mountain variety. The Indians cooked it in a variety of ways: cooking in the shuck, making into

Joel Barlow's "hasty pudding," making into meal, and then cooking them into cakes. Sometimes peppers were mixed with the leaves, and at other times scraps of meat. Nor is this all. The early Mexicans seem to have known that from it both whiskey and sugar could be made. The Indians of New England taught the Pilgrims how to plant and cultivate it, "*manuring it with fish*," without which it would not grow. Whether this had to be done on account of the poverty of the soil, or to hasten its ripening, is unknown. And although the colors were numerous, they may now be said to be two only, yellow and white, generally grown. Since then the tendency of the plant to throw off "suckers" or branches has been changed, so that now, unless under peculiar conditions, it does not revert to its ancient form.

As a general rule those living in villages cultivated most of it, and the labor of doing it fell chiefly on the squaws. This is not strange, since the hoe was the only implement used, they having none that could be used with horses as with us, things requiring more skill and mechanical ingenuity than women usually possess. Even within our own time, before the introduction of cast iron and steel plows, with better harrows and the present cultivators, the hoe was, and is now in many parts of the North and West, the reliable instrument to keep the grass down, and to add the necessary hill.

Even now, with our improved implements, the steam-plow included, corn is an expensive plant to cultivate, from the number of plowings and other workings the soil requires to be put in fit condition to plant and to grow corn. Not less than one plowing, and from five to six harrowings at the distance of a week or ten days apart, being considered essential on even light sandy land to "make a crop". When it is considered that each person uses 3 bushels of corn per year, and that the yield of this state rarely exceeds, and seldom reaches, 25 bushels per acre, and that by the census of '80 there were 91,000 engaged in agriculture, producing 18,000,000 bushels, we see at once how pertinent the inquiry how to grow the most corn at the least expense.

Mr. Statistician Dodge in 1883 divided agriculturists into four

classes, the first earning \$457, the second, \$394, the third, \$261 and the fourth only \$160 per annum. True, this calculation is based on the relative rates of this class to the others and different occupation, but it gives one an idea of the profits that flow from it. In this light two things become essential: *Grow more; lessen cost of production.*

To the first proposition we address ourselves: How can this be done? Evidently we must increase the yield, and how can it be done on the same area and at the same cost? Two ways present themselves, manure more or cultivate better. The first will probably involve the use of fertilizers, a most uncertain factor with our changeable seasons to contend with. The second then remains: cultivate better.

And here we say, as a rule, our land is not in the best condition when we plant. It is too rough, too compact, to allow the little feeble roots to penetrate it. A fine tilth is essential to the quick start, and the future growth of the plant. For even if it derives its nitrogen from the air to, a large extent, which is now believed, yet the stalk, which begins to take it when the second whorl (leaf) appears, is then too small to gather much, and so it must depend on its feeble roots and the mechanical condition of the soil, even though it be full of plant food. The rule here is to work close by the corn three times, and then lighten the harrow in all subsequent uses.

In New York at the Experiment Station a plat of corn had the roots cut at a distance from the stalk on both sides of 4 to 8 inches. Nine days after the process was repeated, when the plants were 10 inches high, with the season showery. Another one of the same size was left unpruned and the weeds kept down by being hand pulled, or cutting with the hoe only a half-inch deep. The result was that the unpruned yielded over 10½ bushels to the acre more than the other.

Again, five plats were worked 2½, 2, 1½, 1 foot deep and 6 inches; that worked the deepest only beat the shallowest ½ of a bushel in weight of ears and 3½ lbs. in that of stalks. In Illinois unpruned corn yielded 4 bushels more per acre than that pruned. The corn worked one inch out-yielded that worked 3 inches.

In Minnesota, where the roots were pruned after the last plowing, 6 inches from hill and 6 inches deep, the unpruned yielded 3 bushels more than the other and 800 lbs. of fodder more per acre. "Quit cultivating when the corn is 4 inches high."

In Ohio, where yield was 77 bushels per acre, deep cultivation was better.

In Illinois, with root pruning 3 inches deep, the result was uniformly in favor of the unpruned, although "not largely," (4 bushels.) At 4 inches deep it was 13½ bushels per acre in favor of the unpruned.

The greatest decrease from root pruning was one-fifth; the least about one-eighth, and the average about one-fifth.

In Dakota the difference between deep and shallow cultivation of corn was slight.

The habits of growth of corn roots and the broad question of evaporation must be reserved for another article. X.

The Oat Crop.

Oats are extensively grown in this country, principally as food for working and driving horses. In Scotland, and on the continent, they are grown for household use, oat meal being in high esteem as a rich and strong diet when properly cooked and prepared. Their legal weight is 32 pounds to the bushel in a majority of the states. It is the popular opinion that northern-grown oats are heavier than those of the south, and this appears true, for oats grown in Montana contained 11 per cent. of water, and those of Arkansas 4 per cent. In oil, Texas oats rank first, with 11 per cent., and those of Virginia lowest. In "heat-producers," those of North Carolina ranked first, with nearly 72 per cent., and those of Texas and Missouri 10 per cent. behind. In "flesh and muscle-forming" qualities, those of Ohio had nearly 19.5 per cent., with those of North Carolina 10 per cent. behind. As a strengthener and muscle-former, they have 3 per cent. more nutriment than wheat, which is called a "complete food," but lack 2 per cent. of the latter's fat.

While oats do not suffer as much from climate, elevation, rainfall, as the other cereals, yet they lose very much in weight when carried from a cooler to a warmer climate.

Prof. Brewer, in his article on the cereals in the tenth census, states "that imported seed, weighing 42 pounds to the bushel, carried to Michigan, would fall in the first crop to 38 or 40 pounds, and would continue falling in weight, although every pains was taken in 'preparation of ground and selection of seed,' until, in a few years, they reached the standard weight of those in that section." Thus following the course of northern potatoes when brought south, in weight if not in productiveness.

Where oats are sold by weight, as they now are in commercial centres, a few pounds difference in weight would go very far to lessen freight and commission expenses, and would seem to look to the annual purchase of those northern grown for warm sections. This is of some import to all those living south of the 36° N. latitude, where the yield per acre rarely reaches 17 bushels, and generally falls below 10 in the larger part of the section.

An old opinion is that oats are less exhausting than wheat has long been entertained, but it seems to have been a most erroneous one.

From a special bulletin of Maryland Experiment Station, we give the following table of the relative exhaustion of the four principal crops for an average crop in pounds:

	Potash.	Ph. Acid.	Nitro'n.
Wheat.....	58	45	111
Rye.....	76	44	87
Corn.....	174	69	146
Oats.....	96	35	89

Then the wheat would abstract from the soil substances that to replace would cost \$22.05 per acre, and the oats to the amount of \$20.25. If we suppose the wheat yielded 15 bushels to the acre, saying nothing of the cost of reaping, threshing, freight and commission, to put on market, where it sold for \$1 per bushel, the raiser would be out \$7.05, and in the case of oats, he would be out \$12.75. Thus showing that on all lands that will not "heave," wheat is the cheaper. C. W. A.

What Shall We Plant?

As spring approaches this all important question naturally arises to the trucker. Not but what he could soon settle the question in his own mind if he had the foresight of the seer, and knew what would sell and bring in fair returns for his labor. Not having that, he has to study it out as best he can from past experience and future probabilities. If he wishes to make a success of it, and we all want to do that, though I must say that some seem to go it blind, or because a crop sold through scarcity or something else the last year, they think it will be apt to sell the present one, and they bend all their energy on the same crop, without thinking what cause made that crop sell the past season, and as we are not apt to have two years alike they find the market glutted with similar crops and the results disheartening by their own thoughtlessness.

Better far not to run to extremes, but work cautiously, all the time planting such crops that we are best versed in and can handle in good condition. Too many have gone into the extreme this fall in planting cabbage, because some of the growers of this article last year made money at it, said parties not thinking that those that did make a success of it had done it by years of experience, and specially prepared land at great expense; whilst the entire failure of crops elsewhere gave them the chance of a lifetime, which may not happen again for many years.

There has been a good deal of talk about co-operation among truckers in regard to selling and disposing of their crops, but their crops are so different and diversified that it would be next to impossible to get them to combine for their own interest, and all aims and efforts so far have been failures.

I once heard a prominent truck farmer say that the only way to accomplish anything in this line would be to drown one half of the growers

of truck in the Chesapeake and then shoot half of the others, then there would be a chance for the others to combine and keep up prices. (I wonder if said trucker would agree to be the first one thrown overboard. I guess not.)

I earnestly believe that if all the truck was first-class that was offered on the market we would not have so many bad markets. But there is so much uncultured stuff brought to market that really, in many instances, is not fit to feed hogs on, that it is the trash that works to a disadvantage of the grower of good stuff.

RICHARD VINCENT, JR.
Baltimore Co., Md.

The Gunpowder Club.

The January meeting was held at the residence of William W. Matthews, John Bond being foreman. After the usual tour of inspection, upon returning to the house, the minutes of the previous meeting and of that last held at the same farm were read. Then followed the

Half Hour for Questions.

A. T. Love asked the cause of abortion with cows, and the remedy. He had talked with persons dealing in cattle and find they are sufferers by it. With his, there is a falling off of milk and a loss of fifty per cent. of the calves. Several have been so affected since he met the club. He fed on mill feed, corn and cob ground, but no oil meal. The trouble began since stabling his cows. His father, who fed his cows with swill-slop, had had similar experience, but for ten years there has been no such trouble. He breeds Jersey stock. It was suggested to keep the cows from the bull if they are inclined for him.

Samuel M. Price asked about a cow sterile for two years. Mr. Bacon suggested driving her from home to a distant bull, he having had success in that way.

W. W. Matthews asked the comparative value of manure from corn and flaxseed-meal feeding. Had read where horses fed with two pounds of flaxseed-meal a day, with cut hay, would keep in good condition, and that one load of manure from flaxseed-meal is worth two from corn feeding.

J. B. Ensor thought the corn-feed manure the better, and S. M. Price said a chemist would be needed to decide.

A. T. Love asked if cut corn was preferable to corn ground. Mr. Ensor said a Harford county farmer told him cattle fed on cut corn did better than on ground feed. Mr. Matthews thought ground feed and cut provender the better provender; whilst it was said much of the grain from cut corn passed through the animal, yet it was remarked that a great deal of the ground feed is also visible.

S. M. Price, when asked, said he still feeds threshed fodder; uses eight horses in threshing and finds it heavy work, though not as hard

as threshing grain. He referred to President Alvord's statement in Harford county as to the greater value of the butt ends of the fodder, and said cattle will eat the threshed better than the cut fodder, as it is torn into shreds.

Mr. Bacon asked whether he would advise getting a thresher for that purpose. *Ans.* It depends on how the fodder is fed; threshed fodder is not good to mix feed with. If fodder is cut after being threshed, it would make excellent soft feed. Would not use a good thresher, but an old shaker one.

Mr. Matthews asked at what time pigs should be slaughtered to be profitable. Mr. Bacon thought it would not pay to keep pigs over winter. February pigs kept until nine months old are better. A. C. Scott said summer market hogs generally bring better prices. Has sold them at 6½ cents per pound. Has sold spring pigs in August, spring pigs at five months old weighing 140 pounds. Bought pigs last June and at killing time in fall they weighed from 128 to 148 pounds. Has had September pigs weigh 165 pounds in February.

Mr. Matthews asked best time to train grape vines, and the kind to plant. N. R. Miles said prune in February, and plant Concord, Catawba and Delaware. Clinton is small, but a good bearer. Secretary Stewart commended the Concord and Hartford Prolific, remarking his vines had just been pruned.

Mr. Ensor asked whether in trimming pear trees it is best to cut the top down. Messrs. Miles and Scott did not prune pears, nor the former cherries. If sprouts appear, pull them off when young.

Mr. Matthews asked if it is profitable to raise colts, and, if so, what class. Mr. Ensor raises all his colts, and it pays better than raising steers. A colt at three years is worth \$100 at least, but steers are worth only \$30 to \$35. Farm or draft horses are best for farmers to raise. In raising to sell, the horse used must have a good reputation. Mr. Bond said one should get a good brood mare, which is more important than the horse, either for draft or fancy purposes. Mr. Scott said one of his had nine colts in ten years.

After the usual selection of committees and the reappointment of W. W. C. Stewart as Secretary, and L. M. Bacon as Treasurer, the designated members read selections from the agricultural papers.

Mr. Miles having read from THE AMERICAN FARMER an article on "Monotony in Farm Life," suggested that farmers are largely to blame for this monotony. There should be more neighborly intercourse, homes be made attractive, drudgery in farm work alleviated, and every attention paid to the interests of the farm. The lady helpers and their needs should be encouraged. Many a woman has more practical sense than her hus-

band, and if she had control there would be less monotony. Woman will hereafter hold a more prominent place in agricultural life, as she is demonstrating her value and usefulness in other spheres than on a farm.

The question for discussion at the next meeting is: "Which pays better, wheat at \$1 per bushel or hay at \$10 per ton?"

Harford Farmers' Convention.

The third annual Harford County Farmers' Convention was held January 9th, and was largely attended and very interesting.

Mr. George E. Silver, president; William L. Amoss and Joseph T. Hoops, secretaries.

The President, on calling the convention to order, made an address, in which he included the following apt suggestions:

A great need with farmers is more frequent intercourse with members of their own profession. An interchange of the ideas, based upon experience, would be beneficial to both parties. In this way the best and shortest methods of producing results would be ascertained, and both time and money saved. For promoting this sort of intercourse no better method can be devised than the organization of farmers' clubs.

The application of steam, chemical force, etc., making its influence felt in agriculture as in other departments of industry, in the increase of articles produced, has had the inevitable effect of proportionately decreasing their value. To counteract this evil farmers should bring both brain and muscle to bear upon their profession. Foresight and economy should be exercised in every department. No animal should be fed at a loss, and land capable of producing crops worth hundreds of dollars should never be planted in those which will only yield ten. The principal profit to be derived from farm crops is to be found in the bushels produced in excess of the average. A farmer should never be tempted, however, to sacrifice quality to quantity. It is better to cultivate one acre well than two imperfectly. The production of crops, however, is not the only point to be considered. The farmer must follow his wares to the consumer, study the demands of the market and produce those articles which will command the highest price.

The importance of keeping accurate accounts can scarcely be overestimated, that the farmer may have the result of his labor before him in dollars and cents.

The subject of commercial fertilizers is one which specially interests the Maryland farmer, and upon no point have we taken so little pains to inform ourselves. Ten years ago this state paid nearly three millions of dollars annually for fertilizers—almost one-tenth of the entire income of the state. Upon this question the raising of stock

has an important bearing, and the choice of food, producing the best effect upon the quality of manure, should be duly considered. If the money which we spend in fertilizers was invested in bran or linseed meal and fed to our stock, a two-fold return would be secured.

The Value of Cornstalks.

Major Alvord, of the Agricultural College, delivered an interesting address on the subject of cornstalks.

There are, he said, ten specially noted corn growing states, in which more than one-tenth of the cultivated area is in corn. Of these states Maryland and Delaware are the only ones east of the Alleghany Mountains, Maryland being the corn centre of the Alleghany slope. The state raises from fifteen to sixteen million bushels annually—not a high average, only a little more than twenty bushels to the acre. The grain is worth from \$6,000,000 to \$7,000,000, to say nothing of the fodder. The more thrifty a community is the more attention they pay to corn fodder. Cornstalks are as well appreciated in Harford county as anywhere, yet there is waste.

He described the two most general methods of harvesting corn—one being topping and stripping and the other cutting off the stalks. In Maryland, he believed, two-thirds of the corn is harvested by the first-named method, and it involves waste and extra labor.

The different parts of the corn plant are equally valuable. The Professor cut a naked cornstalk into four nearly equal parts, and showed the result of the chemical analysis of one pound of each of such parts. The first was water, of which the driest stalk contains 1½ per cent.; the others were the carbonaceous part, or starch; the woody fibre; proteine or the nitrogenous portion, and the vegetable oil. Analysis shows very little difference in the percentage of these various substances in different parts of the cornstalk. Each joint contains the germ of an ear of corn and if a man leaves two or three joints on the stalk, when he cuts it, he has left the portion which contains the greater part of heat-producing properties, which is wanted at this season of the year. There is more nitrogenous matter in the blades than in the stalks and more fat and starch in the butt than in the blades. The husk is less valuable than any other part.

What is the value of the corn plant compared with the ear of corn?

There is two-thirds as much starch in the stalk, even in the butt, as in shelled corn, or corn-and-cob meal. There is one half as much proteine or nitrogenous matter in the corn plant as in shelled corn. A little more than 2 lbs. of corn fodder, entire, is equal in food value to 1 lb. of shelled corn or corn-and-cob meal.

The average yield of fodder is about two tons per acre. Of this

quantity it is safe to say that 1,000 lbs. of the butts of corn stalks per acre are left standing on the ground. This is equivalent, on every acre, to 400 lbs. of corn meal. This is equal in the entire state to 200,000,000 lbs. of corn meal left out of doors and wasted every year—enough to feed 200,000 cattle every year.

The Professor showed a jar of dried cornstalk, ground to a fine meal, saying that it would make good buckwheat cakes.

He estimated that the cornstalks wasted on every Maryland farm would be enough in value to pay the annual taxes on the farm.

How Can We Save Them?

This great loss can be saved—first, by cutting the corn off close to the ground and saving it in the best possible way. In feeding it should be cut into half-inch lengths. Stock will then eat 90 per cent. of it. If cut into two-inch lengths, stock will not eat the joints, which contain valuable heat-producing matter.

In answer to a question Prof. Alvord said he had not tested the economy of feeding pulverized cornstalks, but would prefer one of two other ways—one was to soften the stalks before feeding and the other to convert them into ensilage.

The driest corn fodder, if cut into small pieces and packed closely together, will heat and become soft and palatable.

It costs no more to take corn fodder from the field, cut and pack it in a silo and feed it to stock than it does to cure it in the field and cut and feed it to stock.

Mr. Henry Macatee asked Prof. Alvord if he considered it better to make ensilage or cut and feed the fodder dry. Mr. Macatee remarked that he makes more milk feeding cut dry fodder than he did from ensilage which was cut in the roasting ear state.

Prof. Alvord said there is less food, pound for pound, in dry fodder than in that from a silo, but it was unfair to compare one year or one cow with another. The younger you cut ensilage the more you lose. The best way is to cut it from the root at the time the ear is taken off.

He recommended cutting fodder into small pieces and packing it in hogsheads, where it will ferment, become soft and should be fed immediately, or it will mould. The joints will then be eaten by stock.

Mr. George R. Stephenson asked whether it is better to make ensilage of the whole plant or to take off the ear first.

Prof. Alvord replied that he would rather have a little of each. The cheapest way of harvesting a crop of corn is to put stalk, ears and all into the silo.

Mr. Charles L. Vail asked if the ear undergoes any change in its feeding qualities in the silo.

Prof. Alvord.—Chemists tell us there is a slight loss of carbonaceous matter but the percentage of proteine is increased thereby.

The question box contained questions as follows:

"Is stable manure, when hauled and spread on hard ground as beneficial to crops as that applied when the ground is not frozen?"

Mr. James Lee said he had applied it that way and thought nothing was lost thereby. He hauls his manure directly from the stable to the field, at short intervals.

Prof. Alvord said he would not hesitate to put it out on snow but there might be some loss if it were put on ground coated with ice.

"What is the cheapest and best source of obtaining nitrogen for plant food?"

Prof. Alvord.—Keeping plenty of stock and feeding well, or by the direct application of cottonseed meal to the soil, it being safer and cheaper for this purpose than anything else available.

"Is there any material loss to the farmer by throwing rough corn stalks into the barnyard instead of cutting them up fine and feeding them to cattle?"

Prof. Alvord said there is no manurial value to speak of in corn-stalks. Turning them into manure is simply a way of getting rid of them.

"Is the use of plaster beneficial in the barnyard at this time of the year?"

Prof. Alvord said plaster will do no good when the weather is very cold, but he would advise its use right along. Plaster is useful in fixing ammonia.

Prof. Thos. L. Brunk, of the Maryland Agricultural College spoke, of the waste of manure on farms. Southern people are selling cotton seed at \$8 per ton to Northern people, when it is worth \$24. After passing through the animal it is still worth from \$16 to \$20 per ton for manurial purposes. Manure should be kept where animals can tramp on it and free from rain. It thereby gets into better shape, decomposes more readily and becomes available for plant food.

Mr. J. P. Silver asked if there is any food virtue in the corn cob.

Prof. Alvord said the cob is poorer, as food, than any other part of the stalk. It is valuable to lighten clear corn meal, but it is an open question whether it pays to grind cobs or not.

Irrigating Western Lands.

A resolution, that inasmuch as the agricultural interests of the United States are now suffering from low prices of farm products, caused by over-production, it is therefore inexpedient for Congress to appropriate money from the national treasury for the irrigation of the arid lands of the West.

Prof. Brunk, horticulturist at the State Experiment Station, delivered an address on pruning, and Dr. Ward, State Veterinarian, one on winter diseases of horses, which we will give in our next.

LIVE STOCK.

Feeding and Feed-Stuffs.

Years ago, French scientists established the rations to be fed to different animals on the basis of weight. Thus, when the temperature was from 96° to 107° F., of animal heat, a cow weighing 770 pounds troy would require 15 pounds of hay, or its equivalent, and one of 440 pounds, 9½ pounds. A horse weighing 990 pounds would take 29 pounds, but a hog weighing 132 pounds would take 6½ pounds, and a rabbit of 7½ pounds would eat over one-half pound, while the tiny sparrow would consume 65 per cent. of its live weight.

Now this rule supposes that there is used nearly 222 grammes, or over one-half pound, of respiratory carbon for every 2.2 pounds he eats; it will at once be seen that the nearer the animal is kept to his natural heat the less the heat radiated, and the less food he will take. This brings us to the question of the animal's surroundings, whether the season is summer or winter; if the latter, whether stabled, or let run in the field on cold, rainy and snowy days.

Then again, comes the question of the *quality* of the food-stuffs given. Do we change their diet with the weather as we change our clothes? All foods are respiratory or nutritive—flesh or muscle-formers—or heat-producers—nitrogenous and non-nitrogenous substances—albuminoids and carbo-hydrates, proteids, and non-proteids, for chemists classify them in all these different ways as taste, or a desire to avoid tautology, may demand. Recent advances in chemistry and in experiment station investigations seem to indicate, says Prof. Atwater, now of the Agricultural Department, in the Experiment Station Record for December last, that the whole question of food-stuffs needs re-examination and revision. Speaking of the non-proteid nitrogenous compounds, he says: "Many of them are widely divergent in chemical composition, and while some of them have a high nutritive value, others, including many with the highest percentages of nitrogen, neither form tissue, nor yield energy to the body." It is not to be expected that we shall always hold to the same groupings of compounds for grasses, grains, leguminous plants and their seeds, root crops, milk and meats.

When it is recollected that ether, alcohol, and other substances are used in the laboratory and a higher temperature maintained than is in the water solvent and heat of the animal's stomach, we see why the chemist and the feeder often disagree. As an illustration, take the butt of a corn-stalk and the top. It is evident that the former, although by far the richer food, is practically worthless, because its harder cell-formation renders it

practically unchewable and indigestible. The same is true of other foods. Hence many require to be ground or fed in the ear so as to induce mastication and prevent bolting.

Practically, farmers do not change their food-stuffs with the seasons and the wants of the animals. In winter, those foods rich in carbohydrates should be freely given, and in summer, those that are flesh-givers and muscle-formers, as it is then that these organs are used most with the greater consequent loss.

Outside of the food question comes another that demands no less thought and observation. No two animals can be found, however, much alike in size, weight and appearance, that do equally well on the same amount of the same kind of food, however generously it may be supplied. This is owing to constitutional differences that cannot be foreseen, and cannot be remedied.

E.

Care of the Horse—Shoeing.

A horse's shoe will hold much longer if the clinches are not weakened by the file in finishing. Insist that the file do not touch the end of the nail where it is turned down.

An overreaching horse—one whose hind feet are frequently hitting the forward shoes—should wear heavy shoes forward and light ones behind. The theory is that the heavier hoof will be thrown a little further ahead than the lighter one.

The United States Government has issued the following order relative to the shoeing of cavalry horses: In preparing the horse's foot for the shoe, do not touch with the knife the frog, sole or bars. In removing surplus growth of that part of the foot which is the seat of the shoe, use the cutting pinchers and rasp, and not the knife. The shoeing knife may be used, if necessary, in using the top clip. Opening the heels or making a cut in the angle of the ball at the heel must not be allowed. The rasp may be used upon the part of the foot when necessary, and the same applies to the pegs. No cutting with the knife is permitted; only the rasp is necessary. Flat-footed horses may be treated as the necessity of each case may require. In forging the shoe to fit the foot, be careful the shoe is fitted to and follows the circumference of the foot clear round to the heels; the heels of the shoe should not be extended back straight and outside of the wall at the heels of the horse's foot, as is frequently done. Care must be used that the shoe is not fitted too small, the outside surface of the wall being then rasped down to make the foot short to suit the shoe, as often happens. The hot shoe must not be applied to the horse's foot under any circumstances. Make the upper or foot surface of

the shoe perfectly flat, so as to give a level bearing. A shoe with a concave ground surface should be used.

Thoughts on Feeding Swine.

A granger had a sow with ten pigs that were reducing her to a living skeleton. Watching his opportunity, when the pigs were taking a nap, he turned the sow out of the pen and closed it on the pigs, and commenced feeding them according to the books. Nine of them had the appearance of having been run in the same mould, and that there was not enough of the other to fill the mould, which he handed over to the sow for company. As soon as they became reconciled to the loss of their mother, a struggle commenced for the mastery. They appeared to be evenly matched in strength, but he soon noticed that one of them had more action, carried his head higher, with a business look, showing more white in his eyes. They kept it up nip and tuck for some time, but the high stepper finely cornered them all, and helped himself to the first and best picking at the trough, so that in a short time it showed in his size and importance. His growth was rapid, the larger he got the more he wanted to eat all the swill in the trough and make the others stand back. At last he tried to beat his own record. He did, and laid down seemingly satisfied, with the exception of a painful grunt; but he never got up again, and was soon heard to squeal his last squeal. The granger leaning over the pen contemplating the loss of three hundred pounds of pork, and comparing the greed of the hog with one of his neighbor's, wondered why Darwin, who had gone back for centuries tracing the evolutions of animals in looks when he could have had the finest specimens of actions (that speak louder than looks) in his own generation. After scratching his head for some time, he couldn't make it out, but thought it might be that animals took a good deal from man, or vice versa.

JON E. CAKE.

Poultry Yard.

Seasonable Hints.

If lime in some shape or other be supplied to the laying hens, there will be fewer soft-shell eggs; burned oyster shells, burned bones, and old mortar for instance.

The value of kerosene in poultry houses is not properly estimated. There is nothing so effectual against lice. Sprinkle with a fine watering pot over the roosts and in the nests.

The roosting places should be frequently cleaned out, and white-wash and carbolic acid used for healthiness.

Cleanliness must go with good feeding; these two provisions will bring you satisfactory returns.

In the summer you will see the fowls enjoying the luxury of a dust bath. Provide a way that they can enjoy the same luxury during the winter. It seems to be a necessity for them. Clean sand or dust in boxes under shelter, with a little kerosene sprinkled in it, will do for them to dust themselves.

Provide convenient perches in the roost, easy of access, and plenty of them, so that they will not be crowded.

Have an eye to the collecting into a dry place all the droppings. You will need them in the spring. Mixed with the compost heap they are very valuable for all kinds of garden products, and especially for onions. The careful husbanding and application of this resource is no small factor in making up the success of the poultry business.

Horticulture.

Peninsular Horticulture.

A meeting of the Peninsula Horticultural Society, covering three days, was closed Thursday night, January 22d, in Easton, Maryland. This was perhaps the best meeting this society has ever held. The farmers of Talbot county took more interest in it than has yet been manifested at other points, where former meetings were held. It is useless of course to say anything about the citizens of the town, as to the manner in which they value anything tending toward the public good; for, although different from nearly all the other "county-seats" of the state, in her intelligently directed enterprise, this difference is not as marked as the liberality of its citizens, which is the touchstone of the rapid progress of this county-seat.

Director Alvord, together with Professors Alvey, Patterson and Brunk, of the State's Agricultural Experiment Station, contributed most valuable assistance to the success and interest of the meeting, while the Agricultural Department at Washington was ably and efficiently represented by Professors Smith and Galloway. We had hoped that some of the *live*, practical horticulturists of the Western Shore would find it convenient to honor us with their presence, but such hopes proved fruitless. There seems to prevail an impression outside of the peninsula, that its horticulture is of a character peculiar to itself and the methods employed. The fruits, vegetables and flowers grown here, are of questionable value elsewhere. Such, however, is at great variance with the real facts. The only difference between this peninsula and other parts of the country, horticulturally, is that unchangeable one fixed by the Great Creator Himself, viz: It has great natural advantages. Outside of this, everything is in keeping with the general practices of horticulture. We confess to some partiality for the peach,

but this results from pre-ordained conditions of soil and climate, as recognized and received by our population, which, influenced by enterprise and good morals, yields a willing obedience to nature's precepts and the laws of nature's God.

That the State Horticultural Society is only such in name, that it falls far short as an educator in the art implied by its title, that its existence to-day is maintained exclusively by the liberal and progressive florists of Baltimore city, are facts too plain to be gainsaid. This is no fault of the thrifty florists, rather a great credit to their zeal and public spirit. They are keeping in with the great current of progress, liberally staking it with guides, so that dangers and risks may be fewer for those who are to follow them; but while the florists of our state are thus busy and honest in their duties to themselves and posterity, it is pertinent to ask what the fruit and vegetable growers are doing?

Why cannot Maryland, like her sister states, support and encourage this educational feature of one of her greatest industries? Why cannot the Legislature appropriate, say only \$500 annually, for the maintenance of a school of this character? Ah! why? Shameful are the reasons. What good can be derived from the annual meetings of a Horticultural Society? the politicians ask. "Eastern Shore" fruit and vegetable growers patiently waited for the Western Shore to take the advance. Our brethren of the Western Shore seem to have fallen into the sulks, because of the failure of the Old State Society in the aims and objects as set forth in its organic law. Now, "we-uns" are in position to say to "you-uns," come over, join us. With the means of education, that so generously come to our assistance from the Experiment Stations and the Department of Agriculture at Washington, we can do you good. We are anxious to exchange good for good, with some friendly fruit and vegetable growers. Perhaps you fear it will not pay—you. Has your experience been bought at too high a price, or is it owing more to a tired feeling that too often chokes enterprise to death—which?

We feel that we are just as much a part of Maryland, horticulturally, as the politicians tell us we are, politically, (this latter only occurs near election time). If, however, we are no nearer a unit than the average politician is to the truth, "we uns" better "take to the woods."

J. W. KERR.

Denton, Md., Jan. 26, 1891.

Nut-Bearing Trees.

The following paper on "Nut-Bearing Trees" was read before the Mississippi Horticultural Society by Mr. W. R. Stuart, owner of the famous pecan groves of Ocean Springs, Miss., now attracting attention all over the country.

"NUT-BEARING TREES."

"Whatever may be said of forest trees for shade, shelter and ornament, I confess to a special regard for the nut bearers.

"Pecan culture is my hobby. I know nothing practically about nut-bearing trees in general. I have had some experience in pecan culture, but do not know it all by a great deal. I do know that pecan culture is the safest and best investment in all our land. When I was fifty-six, I bought the largest and best paper-shell pecans I could find, paying \$1 per pound for them, and planted the nuts. When sixty-eight, I got \$305; when sixty-nine I received \$700 to \$800. This year I was seventy on the 18th of November, and I will get \$1,500 to \$2,000 from the sale of my young trees and nuts. One tree gave me two years ago 117 pounds, which I sold for \$117. Last year I got only eight nuts from the same tree. This year I will get about 150 pounds of pecans from off years. A planter putting out 500 trees in a grove, ought to plant 100 trees every year, then he will have plenty of pecans every year.

"Every species of nuts, acorns, pecans, hickory nuts, etc., should be planted as soon as possible after fully ripe and matured; kept too long they become dry. In planting pecans it is wisdom to select such varieties as are fruitful, large and of best quality. Plant the pecan nut where you wish the tree to stand. Permanently, I think is best, or in the nursery, as you please. I cut the top root at one year old, before planting out in the grove.

"Properly transplanted and cultivated, pecan trees will show a little fruit in seven years. In ten years they will come into profitable bearing. The pecan is a beautiful shade tree.

"The subject of pecan growing is becoming vastly interesting all over the gulf states, for growing the very large hard-shell, and paper-shell pecan is a profitable business. In raising this valuable nut to supply the markets of the world, the point is to make no mistake in the beginning. Plant trees produced only from large choice seed. There is no need to emigrate to California if we desire to grow nuts. We have a variety indigenous to the Mississippi Valley, which will always sell for more per pound than the English walnut, and it is much superior in all respects to the latter. (I need not tell you that I allude to the pecan.) A grove of pecans will cost less and bring much better returns than the walnut. The demand for the former is increasing every year.

"Besides there can be no danger of overstocking the market for years and years as England, France and Europe generally know as yet little about the pecan.

"The extinction of our native groves is only a question of time as there is no special protection given them. The nut gatherers destroy hundreds of them every fall cutting them down in order to obtain the

nuts more easily. What vandalism. I advise our young men to plant pecans.

"The young trees should be set at least 40, 50 or even 60x60 feet if the land is very rich.

"The trees must be worked and kept clean for five or six years. They should be forced and kept growing when cultivating your crops. You work and care for your trees in this way and you will have in ten years from seed a good paying pecan grove, and then what a pasture you will have for your Jersey cattle.

"An old Creole tradition comes to me through one of the most cultured men in Mississippi. He got it from an old Frenchman. Plant pecan nuts on the third, fourth and fifth days of the new moon in January and your trees will come into bearing in a few years. I do not vouch for it, but planted 4,000 nuts last January on the 22d, 23d and 24th in my nursery to sell this winter and plant out."

[I am well acquainted with this gentleman. His pecans are the finest I ever saw. He has just sent me a pound gratis which I will show at the Peninsula Horticultural Society Meeting at Easton. Prof. Van Deman, U. S. Pomologist has named his, Mr. Stuart's, best variety, after its grower, "Stuart." And Mr. Stuart has named another splendid soft shell variety after Prof. Van Deman. The nuts of these two varieties he sells at \$1.60 per pound. They are without doubt the finest pecans in America, and I have seen fruits from many groves all over Texas. These two varieties, to my notion, while easily cracked and very large, are not quite so fine flavored as Mr. Stuart's Mexican and Louisiana paper shell and his large hard shell. I know of one orchard in Texas with 11,000 trees in it. It is located at Brownwood, and owned by a Mr. Swindon. This, to my mind, is one of the best legacies that can be left those who come after us, and a good investment for any young or middle-aged man.

T. L. BRUNK.]

College Park, Md.

What May Be Done Now.

Stakes may be provided now for the raspberries, grapevines and lima beans; that will be so much time gained, and all the loose boards and palings may be fastened. A few pounds of nails, a hatchet, and a few hours of skilled work, will very much help the looks of things all about the premises. Before long there will be a press of business and then these things might be neglected. As soon as the ground will admit right up the leaning posts and repair the enclosures. Look over the garden grounds in time, and arrange and assign places for the different kinds of vegetables, and certainly provide an ample compost of strong forcing manure to apply at planting time, which will soon be here.

The American Farmer

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At the office of THE AMERICAN FARMER are located the offices of the following organizations, each of which its proprietor, Wm. B. Sands, is Secretary:

Maryland State Farmers' Association
Maryland Horticultural Society.
Maryland Dairymen's Association.
Maryland State Grange, F. of H.

BALTIMORE, FEBRUARY 1, 1891.

To the Friends of The Farmer.

We hope our friends who have not been able as yet to forward their usual clubs of subscribers—due in some sections to the condition of the weather and roads which has not been favorable for efforts in that line—will not lose the opportunity which this month offers for some exertion on our behalf, that its circulation may be maintained and its influence widened.

Renewal of single subscriptions is always in order, and we recommend that it be attended to at once before it escapes attention, lest, being so small a matter, it drop out of sight. Further, our friends can do us a favor by coupling each a new name with his own in remitting.

Trusts.

It was reserved for the people of our country to see in the last decade of the nineteenth century the most extensive and indefensible combinations of individual capital for the plunder and oppression of both producer and consumer that were ever consummated by human greed and rapacity among any people in the history of the world. Under the name of trusts these men of money have banded themselves together to regulate commerce, trade and traffic to suit their own selfish objects by over-shadowing and crushing out small producers and holders of economic supplies, and then being the controllers of production, arbitrarily setting values and prices, and practically compelling consumers of every class to accede to their terms. By them the laws of exchange are

practically neutralized. They appear to have the people at their mercy, and a very unfeeling mercy it is. They propose to keep supplies short so that prices may always be high, and that the benefit of these high prices shall be for monopolists alone. The inevitable tendency of "trusts" is to destroy competition, to increase the price of commodities to consumers, drive small capitalists out of business, and to amass fortunes at the expense of the whole community; and to subserve these purposes, their aim everywhere is to control legislation in their own interests against those of the people. By them the laws of exchange are practically neutralized. They appear to have the people at their mercy. They propose to keep supplies short so that prices may always be high, and that the benefits chiefly of these high prices shall be for the monopolists alone.

The farmer is equally interested with all other industrial and producing classes in making common cause against the aggressions of these voracious combinations, and should do so without regard to political antecedents. Party bias should be merged in the more important purpose of self-preservation and protection.

We believe, however, the day of trusts is about ended. On every side they are being abandoned. It is being found that it is not wisdom to antagonize public interests. The name is becoming offensive. The protest of the people is heard. Trusts are becoming things of the past.

A Word of Encouragement for the Boys.

A generation or so ago the brightest boys of the farmer's family were assigned to the professions, and sent away from home to go through the routine of a college. The dull fellows were kept back and sent to the fields to be plodders. Now-a-days a different order of things is coming up and eventually must prevail. Once the idea was popular that only muscular strength was necessary on a farm; the strength to guide a plow, to wield a hoe, an axe, a scythe; the endurance to go through with the sweltering tasks of summer, or the exposing duties of winter. These important requisites given, a booby might fill the place just as well as any one else, so some people used to think.

Farmer boys, what think you? Do you not place a higher estimate upon your skill and upon the value of your services, and resent the false discrimination that would class you with boobies and ignoramuses? Your clothes may not be so fine and fashionably cut as the raiment of the boys in the cities who are selling dry goods and groceries behind counters, or studying for the professions; but remember the fact, and keep it uppermost in your minds, that you are the peers of any of them. Your business is a noble and an honorable one. It is one

which antedates every other vocation of the wide world. The farmer was plowing and sowing and garnering his harvests long before a merchant, lawyer or doctor was known, and he still stands pre-eminently above them all for usefulness in the land. He it is who is foremost at the gates whence issue the steady, never-failing streams of plenteousness which are to feed and sustain the hungry millions of the world.

Look up then, boys, who are getting health and strength from the exercises of the fields, and vindicate yourselves. Accustom yourselves to considering your calling as a fortunate one for you, in that you are removed from the many besetting temptations of the crowded city—temptations which are luring thousands of the young from the paths of duty, honor and integrity, and sealing their lives to failure and disappointment. In all of your intervals of respite from your honorable toils, apply yourselves diligently to acquiring useful knowledge, so that you may have strength and intelligence combined for the prosecution of the work before you.

A State Immigration Convention.

Governor Jackson has issued a call for a state immigration convention to be held in Baltimore on February 18, in accordance with the recommendation of the Southern Interstate Immigration Convention, lately held at Asheville, N. C., which recommended the early holding of state conventions to consider the expediency of state action and of co-operation among states on the question of immigration. Governor Jackson says:

"Much interest in immigration has developed during the last few years in most of the Southern States, and in some of them great good has resulted from proper effort. This whole subject was considered by the Southern Interstate Immigration Convention lately held at Asheville, North Carolina, a large and enthusiastic gathering of representative men from fifteen states, including Maryland. A plan for co-operative effort was there formulated, which depends upon further action in the several states, and it was recommended that state conventions be held at an early date to develop local interest in immigration and consider the expediency of state action and of co-operation among states.

In accordance with this recommendation, a state convention is hereby called to consider the subject of immigration and the interests of Maryland therein, the same to meet at Mozart Hall, in the city of Baltimore, on Wednesday the 18th day of February, 1891, at 11 o'clock A. M.

All citizens of the state interested in the subject are invited to attend, and it is recommended that all land and improvement companies and neighborhoods in which there is much surplus land for sale should provide for proper representation at this meeting.

The special need for Maryland seems to be for immigrants of the right class, who will come in families or colonies, and, taking up small holdings by purchase or as tenants, occupy our unused land and carry on trucking, fruit-growing, dairying and the other lines of farming for which this state is particularly adapted.

The Maryland delegates to the Interstate Convention will report to the Baltimore meeting, and an opportunity will then be given for discussing the ways and means for making widely known the advantages afforded by Maryland in soil, in climate, means of communication and transportation, access to good markets and the prices of her vacant lands, and for securing the intelligent labor and necessary capital for further developing the industries and natural resources of our state."

Books Received.

HOW TO MAKE THE GARDEN PAY.—

By T. Greiner. Published by Wm. Henry Maule, Philadelphia, pp. 272.

This is a practical work on vegetable growing, giving in much detail descriptions of the varied and numerous operations and processes of successful work in this line, with minute descriptions of varieties, suggestions as to tools, frames and houses, and all other appurtenances of the vegetable garden, written with care and evidently by an experienced hand. No price of the work is given.

THE POULTRY DOCTOR.—Published by Boericke & Tafel, Philadelphia, pp. 84. 50 cents.

This is a neatly gotten up treatise in the application of the homoeopathic system and its remedies to the treatment of poultry diseases, and by its novelty deserves attention from those who have never given them a trial, as well as from the particular description of the ailments they are adapted to cure.

STOLEN AMERICA.—By Isabel Henderson Floyd. Cassell Publishing Co., N. Y. 50 cents.

This is a novel with the scene laid in Bermuda, and containing some startling adventures, interspersed with descriptions of the semi-tropical scenery and vegetation of what the author evidently believes to be one of the paradises of the earth.

ELECTION OF OFFICERS.—The Peninsula Fruit Growers' Society elected the following officers for the ensuing year: President, Col. E. L. Martin, of Seaford; secretary, Wesley Webb, Dover; treasurer, A. L. Hudson, Clayton; first vice-president, J. S. Harris, Kent county, Md.; county vice-presidents, Dr. J. J. Black, New Castle; Dr. Henry Ridgely, Kent county, Del.; Charles Wright, Sussex county, Del.; George Biddle, Cecil county, Md.; Norris Barnard, Kent county, Md.; John B. Brown, Queen Anne's county, Md.; J. W. Kerr, Caroline; J. L. Banning, Talbot; Isaac H. Wright, Dorchester; J. C. Phillips, Wicomico; L. L. Waters, Somerset; Hon. Geo. W. Covington, Worcester; E. C. McMath, Accomac county, Va.; Dr. Brockenbrough, Northampton county, Va.

HOME DEPARTMENT.

The What To Do Club.
OUR MOTTO.

Do what you can.
Not what you cannot;
Not what you think ought to be done,
Not what you would like to do,
Not what you would do if you had more time,
Not what somebody else thinks you ought to do,
But, do what you can.

It is so exceptional in the farmer's home where there is a dining room servant, or where the cook can without taking time from any other necessary work to wait upon the table, even if her personal appearance is not considered, that it is quite worth our while to formulate a system of etiquette to suit circumstances. In the first place, we should aim to make the table—often the only place where the entire family is gathered during the day—as enjoyable as possible. It not only promotes digestion, but it is in part compensation for the head of the family to see that every one enjoys the fruits of his or her efforts. People who can really enjoy eating in the midst of confusion and disorder are not very far removed from animals; therefore, as we are not particularly interested in that kind, we will make our suggestions with reference to people who prefer the ordinary refinement of life, and yet cannot conform to a rigid code of laws prepared for those who have ample facilities for carrying them out.

The head of the table should not leave her seat if it can possibly be avoided, and for her convenience there should be a *butler's tray*, or small, low table, placed at her elbow with every want, as to changes of dishes, etc., anticipated. It is want of *forethought* oftener than anything else that renders her rising from the table necessary. When any further service is required, I cannot see the least objection to its devolving upon a daughter of the house. If there are several daughters, they might take it in turns by the week, as it is very unpleasant to see one waiting for another to do what is needed, and at last the one who gives in rises with an injured air or a cross word to do what is needed. Whenever I see the mother taking the lead, I naturally infer that she has had some such experience and would rather do the waiting herself than risk such scenes.

I once spent a fortnight where there were five boys and one girl, and they all took their turn, in order of age—each one a day—to do whatever was required. It was done without telling or the least friction of any kind. The one servant, who was cook and general house-maid, brought in what was required from the kitchen. There was less delay or confusion than I ever saw at a family table where there were so many children.

When there is more than one course, the plates used and those to be used can be placed upon the small table. It is a very good plan, and not uncommon in houses where a good deal of

ceremony is observed, if there is soup to have the *plates* (or *bowls*, now so much used for the purpose,) filled before the family comes to the table. The risk of spilling is avoided as well as the trouble of passing where there is no waiter. By all means have all plates or dishes warmed in which hot food is to be dished, or from which it is to be eaten. I find I have said so much, that unless I would monopolize this department I must let the rest go over as unfinished business. I must add, however, that we are delighted with our new recruits, and hope to hear much and often from "Pomona," "Bessie" and "Busy Bee," as well as from our old members. CERES.

GLAD to see new members coming in our club. Really, Ceres, you must pardon me for not answering. Here, at roll call. As one of my aunts used to say, we had just "cleverly" moved, and not fixed up, and to make the matter worse, we had no cook but myself and a "hired boy."

By the way, friends, my better-half has at last gotten his growlery. Now, when he comes in from lecturing the hands, and things in the house are not just to his mind, he betakes himself to that room in which "no woman is permitted to enter," and growls to his heart's content. Poor fellow, he could not stand enjoyment of full possession, after all, but came out the first or second evening, after taking possession, and said Mrs. Try Again, I want you awhile. He then led me into *his room*, offered me the best chair, and said "sit down, that chair is for you, whenever you will come in and enjoy it; now let's have a talk." Now, will you believe it? he will *permit* me to clean up in here, (I am in the growlery writing, and he is sitting opposite,) whenever I will, provided, however, I never touch his desk, which restriction does not go in the least hard with me. Is he not the best better-half in the country?

Now about that dinner, which is to be served in courses, without anyone leaving the table during the dinner hour, and at the same time everything must be hot when served.

I acknowledge myself in the same predicament the man was in who never had a hundred dollars. I never could do it myself, and do not believe any one else ever did. I do not see why a farmer's table should require such an expenditure of strength in preparation of food as there is many times. I hold that one kind of flesh is enough at one time, two kinds of vegetables, two kinds of bread, where corn bread is used, and one kind of nice pickle. Soup comes in nicely on a cold day. If peas or beans are used, they can be boiled in clear water, and when sufficiently cooked add a nice supply of salt and pepper, (a pod of red pepper makes it palatable for me,) and then a *good-sized* piece of butter. Now a third of a pound of butter, at thirty cents per pound, will not cost more

than ten cents worth of meat and season a larger amount of soup, and, may I say it, season it better. A pair of nicely baked chickens or other fowl, two kinds of vegetables, pickle or jelly, or both, *good* corn bread, *good* light bread, a dessert of canned fruit, good cream and a piece of good cake, will make a good enough dinner for any one, I think. If any people in the world can keep a table of variety in serving, it ought to be a farmer. I do not mean a shiftless farmer, but one who can "guide the plow" while his wife minds the dairy. There, my paper is full, so good-bye.

TRY AGAIN.

It looks as if I might claim to be called *D. Domuch*; I have been so busy lately, but I will not weary the sisters with a history of my labors, only I want them to know it is not my fault when I don't answer to *roll call*.

One thought has so predominated over others of a domestic nature this morning, that I will put it down here. It is that dusting, seemingly such light, easy work, and a sort of after-thought, is in reality of such consequence, and has so palpable an effect upon the appearance of any house. If it is faithfully done, it often supersedes the necessity for much cleaning that is harder to do. For instance, if the window panes are dusted with a clean cloth every day, they will hardly need washing all winter; and so it is with the little ledges that catch the dust on the washboards and wainscoting. If there is any bare floor in sitting room or bed room, dusting is often more effectual than washing or sweeping, and is so much easier. If bedsteads are frequently dusted about the springs and slats, there is much less probability of foreign invaders, etc.

I am ready to discuss *farm dinners* with Pomona, and I do hope they will be so well discussed between us that we may learn the secret of making *something out of nothing*, for that is what we are often driven to do. The cellar is our one resource—the pork barrel, beef barrel, hams and the common run of vegetables. Not so bad as it might be, but it puzzles one to get much variety out of it.

In order to do our best with a piece of pickled pork, it must enter into a dish of *baked beans*, when, if properly done, it will be fit to set before the queen. I will give my recipe below, and also one for brown bread, for they must be taken together to insure the respect both deserve.

It is only fair that our sisters shall give their recipes when they tell us of things that are good. Try Again ought to have told how she prepares *Saratoga potatoes*. I know, but many do not. DOROTHEA DOOLITTLE.

THAT husband of mine has almost made my life a burden since he got hold of that resolution of mine, offered and adopted at our last meeting. He seems to think I meant literally to lay

myself down and let him and every body else walk over me. Sometimes he comes home pretending he has forgotten the most important of his errands until he gets me into a perfect stew, and then he throws my resolution at me and I find he was only pretending all the time.

Then again, every time I get at all worried over the children, or begin to scold the least bit, out he comes with that resolution. After all I really believe it has had the desired effect by keeping him in a good humor. At any rate, he does not try one bit to keep me in a good humor but rather tries to put me out. However, he improves as he grows older; he doesn't make near as much fuss about taking out the horses as he used to, and, would you believe it, he sometimes asks me if I need any money. Is there a man in a thousand who does that? Well, I taught him. Go and do likewise, sisters.

HELEN BLAZERS.

AFTER the manner of John Gilpin's wife, "Though on pleasure bent, I have a frugal mind," consequently I kept always in mind, during a long outing which I had last summer, the report I expected to make to our club. We may move along in one groove for years, thinking all the while that we are on the only right track, and that other people who do things differently are to be pitied, because they don't do as we do, and I know very well that *old maids*, as they call us, are very much inclined that way. However, it is well to go away from home awhile and learn some other ways besides our own.

The first visit I made was at a house where everything moved so smoothly one hardly realized that things were done at all, only that there was general comfort. This was in a minister's house, where, of course, there was a good deal of coming and going, and they had always to be ready for it. I made it a point to study how it was done, because I know there was no reason why other people might not, just as well, take things coolly and comfortably.

The first thing that impressed me was the perfect naturalness of every one of the family. No matter who came, or at what time, there was no flurry or bustling about to set things straight or to dress up. Whether it was the richest or the poorest of the people belonging to the parish some one of the family went right out to the door or carriage and made them feel welcome. The house was only just large enough to accommodate the family comfortably, and there was no room to set aside specially as a parlor. The room probably meant for that was the pastor's study when he wanted to use it. At such times visitors were taken into the dining room, and during the weeks I was there, I never saw any embarrassment from the arrangement, or that the hours of study for

the minister were interrupted beyond what a minister is always liable to from his people.

The house was duly swept and set in order by the members of the family, either before breakfast, or so soon after, that no one was put out. After that it was kept quite neat enough, as they all seemed to have the habit of putting things in their places as they were done with them; and, if by chance anything needed further attention, no one waited for another to do it, but straightway did it.

There were children—two boys and a girl under ten—but they had caught the spirit of order and generally obeyed the instinct. Of course they brought in dirt and made some confusion, but no one scolded about it. I came to the conclusion before I left that we who strive so hard to have things nice and comfortable, are largely to blame for our own disappointments. Instead of *allowing* people to be comfortable, we constantly *strive* for it, and in the effort make ourselves and them just the reverse. The same in our efforts toward neatness and order; we drag our efforts forward (people often do that just to let other people see how hard it is,) and at times and under circumstances that make our particularity painful. All the time it is for our own satisfaction we are laboring.

Another feature of this house worthy of notice was, that there was scarcely any ceremonious calling. When people are taken so right into the family, *card cases* and *kid gloves*, with all the other toggery that goes with them, are at a discount. State parlors are responsible for a good deal of unprofitable ceremony, as I learned during my next visit, of which I must postpone the report till our next meeting.

AMANDA A.

Now that the club has made a good start, and is fairly under way for a good purpose, it may be well for the members to understand each other. Helen Blazers, I notice, is inclined to think, from my style, that I am rather masculine, which may be very true, as I was brought up with a lot of boys, and have been a great deal in men's society. It necessarily follows I should have some of their peculiarities, but I think she will perceive my tendencies are with women, and that from my intercourse with men (and no more a spring chicken) can see their faults and failings at a glance and be able to guard ourselves against them, and by pouring pure thoughts and sentiment into them make a lasting impression on them for good.

I have no doubt but what writing has a better influence than preaching, for this reason, that they can only criticise our words and not our actions. I once heard of a lady who gave her husband a very excellent lecture for staying out most every night very late (as he said, doing up his office work), to which he paid no attention, treating her with silent contempt, which

aroused her sensitive nature, and she went for him with a broom-stick. He could not stand that, and commenced shying the furniture at her. That brought in the police, who collared him to take him to the station; then she turned on the police and put them out. After that they both went to work mending things. I think if they had exchanged notes, written on fashionable note paper, they might have settled their little difficulties in a much quicker way, it has been so often proved that the pen is mightier than the broom-stick or hot words. There is that Jon E. Cake, he sometimes places his words that might be construed to an immodest meaning. He should read the lines by Pope. I think that is the poet who said:

"Immodest words admit of no defence,
For want of decency is want of sense."

SALLY LUNN.

Hints and Helps.

Disposition of Papers.

According to Edison, it is best to read only in your special line, so after making a study of your paper, cut out any item worth while, and paste away immediately, unless you use the envelope system of preserving cuttings; old envelopes can be used. If the paper is good or interesting to anyone, send it to them marked. An open basket to set on the floor is most convenient for keeping papers still unread. A wall pocket is not a success; that is, have you ever seen it used for papers exclusively? There's a novel, almanac, pair of gloves, parcel, duster and cap in ours just now; a basket is emptied on the floor by the seekers after truth, and so kept clear of trash. A stout line, ribbon, etc., stretched against the wall for two or three feet is a very convenient, and not ugly, paper rack. To store papers, use large paper bags, roll papers up and throw in, have paper bag tacked up, with top open; things are not put in bags unless tops are open. S. D.

Recipes.

BAKED BEANS.—Soak two quarts of the best white beans you can find over night. As soon as you can, put them on the fire in other water and let them boil till in lifting a spoonful up and blowing slightly the skin of the beans curls up where it is broken, but do not boil longer or they will become mushy. Drain them through a colander and place them in a stone jar, or what is better, a pipkin, that will hold at least a gallon, seasoning with pepper and one tablespoon of sugar (the sugar preserves the shape of the beans), and into the middle of them put a piece of pork, about two pounds, with the skin scored so that it will slice nicely. Allow the surface of the meat and the beans to be on a level. Then fill with hot water till it is quite even with the beans. Cover tight and put in the oven, bake all

day, examining occasionally, as more water may be needed to keep them from drying. Leave them in the vessel in which they are cooked until wanted for the table, when it can be put in the oven to heat. This will do for two dinners, unless the family is large.

BROWN BREAD.—Two cups wheat flour, two cups corn meal, two cups milk, half cup molasses, one teaspoon soda, one teaspoon cream tartar, one even tablespoon of salt. Steam four hours. If you have no steamer, put it in a bowl or tin bucket, cover tightly, and put that in some vessel that can be covered also very tightly, and have water enough in it to keep up the steam, but not get into the bread. D. D.

Nothings.

1. **MINCED MEAT.**—Any cold beef left over, melon rind, pickled; mix in any kind of preserve left over and too little to serve alone; have enough of these little lots to sweeten the mince meat; freeze.

2. **BAKING PANS.**—Use quart fruit cans; store tin cans can be turned into useful articles by melting off top and using for pan for brown bread or baked beans.

3. **CANNED PEAS,** tomatoes, corn, string and Lima beans, enough of each can be saved out and canned by allowing it to come to a boil, and sealing in old tin cans that have been carefully unsoldered by using hot coals, and carefully cleaned with ashes. We have tried this lately. To get the sealing wax, save all pieces broken off from last year's cans, remelt, instead of throwing away; add a little grease, and use boiling hot.

4. **SOAP.**—Make two ash leachers and two savings of grease, use only your tallow for a toilet soap; combine it with the purest lye, scent with lemon peels, mold your kitchen soap in round cakes, and take pains with it.

5. **TOILET.**—Use a drop or two of sour cream after the hands are washed; rub it in them; then dust hands with wheat bran.

USE OF OLD NEWSPAPERS.—1. Tin cleaned with paper will shine better than when cleaned any other way.

2. Clean windows by rubbing with dampened paper, then with dry.

3. Clean lamp chimneys with newspapers.

4. Fold strips of newspaper into lamplighters. EXE.

Hygiene.

'Tis said "Man cannot live by bread alone," yet it would be very wise in all humans to give more consideration to the quality of their bread, making it the foundation for all meals; there would be less demands for variety, better health, and a general economy every way. How to serve a dinner in courses without help seems to be an absorbing topic; to my mind, those who desire to serve that way, all things

should be equal; far better to employ time and material in learning how to eat to live. Highly flavored and rich dishes may be tempting to the palate and pleasing to the eye, but their use makes it difficult to enjoy and thrive on purer and simpler foods. From rich and stimulating dishes come disease, indigestion and death; while simple diets are conducive to long life and prosperity. Eating, like all other things, can be carried to excess. The requisite amount goes to build up; all other food eaten is superabundant and therefore injurious, since it taxes the vitality to dispose of it. It is fallacious reasoning to say a fine physique can be produced by gormandizing. Heavy eaters are apt to be dull people, clogging the brain in catering to the stomach. If you would not be stranded physically and mentally, learn to simplify in all things. If you wish for the true success, learn that nutrition is better than stimulation, pure air better than foul, pure water better than that which is medicated, sunlight better than shade; that sleep and rest are the Master's appointed recuperatives to fatigue; that grains, fruits and vegetables being composed of the same alimentary properties as flesh meats are more safely and economically used as food; that clothing for the human body reaches its highest proprieties only when in addition to ornament it does not interfere with circulation and the freest locomotion; that full meals eaten less frequently are better than spare meals eaten often, and that for purposes of health as well as for consideration of the higher or spiritual life, courage is better than fear, faith better than doubt, love better than hate, and gentleness better than bitterness of spirit. May the spirit of the Divine Master come to us all that we may have the vision to perceive and the skill to utilize the magnificent forces he holds in his own right hand which are at our disposal. Then will we be less troubled as to what we shall eat and how it shall be served or "wherewithal we shall be clothed."

To live aright unites us with the Master,
At whose feet, the small brown sparrow never
fell unknown,

And ne'er unheeded bloomed the lily sweet.
By walking in His footsteps we may see
How fair and good our common life may be.

A STRANGER.

Our Boys and Girls.

Astronomy—II.

By this time, if you have been early and attentive observers of the eastern horizon, you have become quite well acquainted with the appearance and movements of the bright forerunner of the Sun (Venus) which we described in the first lesson. Do not forget the figures we gave of her size, velocity in her orbit, and of her distance from the Sun and what was said about her elliptical or oval path around the Sun, and about her phases or changes like our Moon.

Make a note of them in your note book or diary, and try to keep the run of them in your memory. With a little study, they can all be fixed there just as well as you have fixed and can describe the positions of hundreds of objects around you. And remember that when this bright planet ceases to be visible at and after sunrise, it is because of the greater light of the Sun, or daylight; for if at noonday the Sun were to be eclipsed and darkness prevail, Venus would still be seen shining about the same distance off as in the morning, and so, also, it would be with the fixed stars which you saw pale away sooner than Venus just before the Sun came up. Remember, also, that our earth is turning over and over on its axis at the rate of a thousand miles an hour from west to east every twenty-four hours, as it makes its yearly circuit round the Sun; and it is this daily motion which gives us our daily sunrise and sunset, and not because the Sun is really coming up in the east and going down in the west; for if one could take a railway train and go westward at the rate of a thousand miles an hour, just as fast as the earth goes eastward, the Sun would not set to him at all. The Sun has a motion of his own of a half a million of miles every day around some other great central point or larger sun, but he is not whirling about our earth although he seems to do so. This is seeming or apparent motion, just as the trees and fences seem to fly past you when riding in a car. The motion of the earth about its axis is the real motion—the motion which makes the Sun and Moon and the fixed stars to rise in the east and set in the west. There are many other very interesting and instructive facts which might be stated about fair Venus. These will be given in some other lesson.

The planet Jupiter, which has been shining so beautifully as evening star after the Sun setting since the 30th of last July, now goes down just after the Sun and will be no more seen until after the 13th of this month, February. After that date, he will rise about an hour after Venus and be her companion as one of the stars of the morning. In our next lesson we will further describe this giant planet; but keep a lookout for him; you must get up early.

The Young Man of Principle.

A young man was in a position where his employers required him to make a false statement, by which several hundred dollars would come into their hands that did not belong to them. All depended upon this clerk serving their purpose. To their vexation he utterly refused to do so. He could not be induced to sell his conscience for any one's favor. As the result, he was discharged from the place.

Not long after, he applied for a vacant situation, and the gentleman,

being pleased with his address, asked him for any good reference he might have. The young man felt that his character was unsullied, and so fearlessly referred him to his last employer.

"I have just been dismissed from his employ, and you can inquire of him about me."

It was a new fashion of getting a young man's recommendations, but the gentleman called on the firm, and found that the only objection was that he was "too conscientious about trifles." The gentleman had not been greatly troubled by too conscientious employees, and preferred that those entrusted with his money should have a fine sense of truth and honesty, and so he engaged the young man, who rose fast in favor, and became, at length, a partner in one of the largest firms in Boston.

"A good name is rather to be chosen than great riches." Even unscrupulous men know the worth of good principles that cannot be moved.

A gentleman turned off a man in his employ at the bank, because he refused to write for him on Sunday. When asked afterward to name some reliable person he might know as suitable for a cashier in another bank, he mentioned this same man.

"You can depend upon him," he said "for he refused to work for me on the Sabbath."

"Dan."

A writer in the Boston Post tells a story about a horse, which leads to the wonderment as to how much these animals know. The gentleman says he went to a large livery stable one afternoon just as a number of men who had left their horses there for safe keeping were driving from the yard. Among them was a man with a large gray horse, who looked about him with an air that seemed to say, "I know a great deal about several things; I know more than you have an idea of." He had broken into a little trot, and was evidently intent upon getting home as soon as possible.

Suddenly a man who had been watching him called out: "Dan, don't you want a piece of cake?" Instantly the horse stopped, pricked up his ears, looked about him eagerly and uttered that peculiar "whinny," which says as plainly as words can, "Where is the man who spoke just then? He is an old friend of mine."

No urging from his owner could get the horse to move an inch. The one who had made the disturbance came forward laughing, and explained. He recognized the horse as one which he had owned several years before.

The animal's name at that time was Dan, and, though it had since been changed, he remembered it instantly, and also that he was very fond of cake, and was in the habit of receiving a piece from the man whose voice he heard once more after the lapse of years. Did "Dan" prove that he had a memory?

The Care in the House—Chapter VI.

"Your room"—just try my cooking with this extravagant girl. "If she was paid according to the plan in my mind, she wouldn't waste so."

"What plan?" said the overseer, hearing her.

"Why, to be given so much money to provide with and to pay herself out of the surplus."

"Ho! trust anyone to do that! the boarders would be skimmed—no supper—lots of surplus."

"You'd see," she said, and she kept on improving and begging full sway in arranging menus, until one noted day she set forth a dinner, all out of her head. First, it was ten minutes late; then the men wouldn't eat her consomme; they refused her croquettes, as hash; her cheese straws were despised; the cream potato is derided, and her squash fritters eaten only on sufferance.

"Take in the cold bacon," she said, said, heart-brokenly, to the girl, "and I will fry some eggs."

She took down the largest frying pan, jerking the open soda can into her pride—a large Charlotte Russe—concocted of refreshing sponge cakes and a made cream, flavored with lemon peel; it did taste good! The overseer had come in early and had tasted the remnants; and it looked lovely! She had perforated and embroidered with scissors all the stiff, white paper in the town, and had sat up nights to fashion it into a case for the Charlotte.

"It is in its coffin now," she thought, and she hid in the closet while the men filed past the window. Two apple pies had been the inglorious substitutes for that lovely dessert, with the soda can still hid in its creamy bosom.

Next day, she took charge of the rooms.

Sunday Reading.

The Power of a Hymn.

The words of the hymn "Nearer, my God to thee," came floating out from the kitchen, where Sarah was at her daily work. They fell, softened by the distance, on the ears of two women as they sat on the front porch of the spacious country house, watching the sun set.

The younger woman spoke:

"Aunt Catherine, that hymn is inseparably connected in my mind with an incident which happened here a few years ago. We were just now speaking of trust. This illustrates my idea of trust and what it does for us."

"You never knew our neighbor, Mrs. G—, so I must tell you of her in the first place. She was one of the most lovable women I ever knew—always cheerful and sympathetic. Although she never seemed to realize

it, she was the leading spirit in all our Christian efforts, inspiring us all with her bright, sunny ways. Mr. G— was just such a husband as you would wish such a woman to have. A love's daughter, two promising boys, and a little curly-headed tot, the pet of all, completed the happiest home circle it has ever been my good fortune to enter.

"In the spring of that year Mrs. G— had a severe spell of illness. After many weeks of suffering, she arose from her sick bed, but with the loss of her reason. The woman we had so admired and honored was a complete wreck, henceforth to be a burden in the home she had before made so happy."

"I knew Mr. G— to be a man of deepest piety. Often I had heard him, in our prayer meetings, thank God for 'a religion that could comfort us in the darkest hour of trial.' My own religious experience was quite limited then, and I confess I was wondering whether he found grace sufficient to support him under this terrible blow; whether he could say, 'As for God, his way is perfect.'

"When the evening came for the next prayer-meeting, he was at his post as usual. His face was pale, but otherwise calm, even peaceful. He had always led the congregation in singing; and when the meeting had progressed a little, our pastor, who was leading, asked him to start 'Nearer, my God, to thee.' From the first words, the old hymn I had known from my childhood began to take on a new meaning. I had thought it a beautiful conception, and I liked the music; but to-night it was the impassioned outpouring of a soul filled with intensest longing for God, as the weary, benighted, storm-driven traveler longs for home. The song was soon a solo. Every heart in the little congregation was stirred. Tears choked our utterance and blinded our eyes. The singer seemed unconscious that he sang alone, or that he had any hearers save God. What infinite pathos he threw into the pleading:

There let the way appear
Steps unto heaven;
All that thou sendest me,
In mercy given;
Angels to beckon me
Nearer, my God, to thee!
Nearer to thee!

"It was not a pleading that the afflicted hand might be removed, but for a faith that could pierce the gloom and recognize it as the hand of love. Even while he asked the answer came. A note of victory shook the air as he sang:

Out of my stony griefs,
Bethel I'll raise:
So by my woes to be
Nearer, my God, to thee!
Nearer to thee!

"I felt certain that he had an experience like that of Moses on Sinai, for his face shone; and we knew that the most joyous man among us that night was he over whose home there hung so dark a pall of misery."—*S. S. Times.*

BETWEEN heaven and earth hangs a great mirror, crystal-clear, upon which the unseen world casts its mighty images; but only the pure, childlike eye can behold them.—*Jean Paul Richter.*

FILL thy spirit from the well of the Bible. Drink deeply and often of its gracious words if thou wouldst be strong. Depend upon it, it is neglect of the Bible that causes the anguish and weakness of so many Christians.

TURN us unto thee, O Lord, that we may be thankful, humble and Holy; for thou art our power, and our strength, and our salvation.

WHEN the spirit of God is in our hearts, to do the will of God will be our greatest joy.

The Grange.

Address from the Master of the National Grange.

To the Patrons of Husbandry of the United States: We are entering upon a new year in our work under conditions very favorable to the extension of the order. The farmers are now ready to organize, and all that is needed to increase our numerical strength, is active, well directed effort.

The National Grange has arranged to pay Deputies something for their services as organizers, and I presume that State Granges have generally arranged to supplement that help. State Masters should at once secure the services of successful organizers. The Lecturer or public speaker can help to arouse the people, but without the persistent work of the organizer, the work is lost.

Secure the service of organizers first, and then if good lecturers can follow them, and contribute to the enthusiasm, well; but if only one person can be sent into the field, let it be organizer by all means.

It seems almost certain that there are to be stirring times in this Republic during the next few years, and farmers have an important work to do and great responsibilities to meet. We must carefully prepare for the same. This movement among the farmers is attracting much attention, and causes no little anxiety among thoughtful men of all classes.

Farmers are just now the recipients of much advice. Some of it is probably disinterested, but much of it is prompted by a desire to use the farmer movement to promote some selfish interest. The display of strength and disposition to do something, has brought to farmers' organizations, every man who has been out of joint with society and existing parties, and all the visionary and impracticable schemes and theories cherished by mortal man, are being pressed upon the attention of farmers.

Men who have never been trusted by their fellows, or who when trusted, were proved failures, are big with the hope that their worth and wisdom will be recognized by the "Honest Yeomanry." We should listen to all, consider well every suggestion,

but take time to be sure we are right before we trust our interests (which are the public interests), in the hands of impracticable theorists; or before we indorse any doubtful scheme. We cannot advocate a false principle, or indorse quack remedies, without weakening our influence, and alienating from our cause those who are able to help us in the coming contest, for "what is ours by right." We should not be afraid of politics or of politicians, but should try to understand both and make the best possible use of both. No fraternal or class organization however can become a partner of, or an annex to a political party without committing suicide.

As individuals we may be partisans, but as an organization we must be free from all such entanglements; and not allow the order to be used to promote the success of any party. We need not be restless if other organizations attract more attention because of radical utterance, or more active participation in the partisan struggles of the day. There are breakers ahead and it will require skill and care to avoid shipwrecks. Politicians will gladly use farmers' organizations to win place and power, but when secure in position, they will forget pledges, and laugh at our disappointments, when we realize that we have again been betrayed.

The political problem must be solved, but we want the correct solution. It must be worked out, and proved, before we will know that we are right. There needs to be a great many political funerals in high life in both political parties. It is very difficult to discover which of the parties furnishes the most obedient servants of Wall street and monopoly.

If the rank and file cannot succeed in sending to the rear these betrayers of the people, we may be forced to organize a party under a new name and new leaders. The people are considering this question earnestly, and will soon be ready to decide. The strength and volume of this sentiment should not be judged by the froth which appears upon the surface. The determination to have reform from some source is deep, strong and abiding.

We desire in this connection to give the sign of Caution. There is danger that in some of the political "storm centers" our members may be tempted to compromise the Grange by forming entangling political alliances. Remember that our members are as free as the air in the exercise of their political privileges; but the Grange as an order cannot call political conventions, nor send delegates thereto, nor nominate candidates nor discuss their merits at any Grange meeting.

This word of caution seems necessary because of reports received from some sections of the country. I trust our members everywhere will see the importance of keeping the organization out of all partisan struggles. Attend party caucuses and conventions and make your

political power felt, but go not as a delegate from any Subordinate or Pomona Grange. Rash and inconsiderate action may undo the good work of years. The old reliable remedies do sometimes seem to be a little slow in their action, but they are safer than the untried nostrums of irresponsible quacks.

Fraternally, J. H. BRIGHAM,
Master of National Grange, P. of H.

Maryland Granges.

BRIGHTON, No. 60, Montgomery county, installed on 21st January. The following officers for 1891: M., W. Everett Brown; O., John O. Clark; Lec., C. R. Hartschorn; St., Wm. T. Scrivenor; Asst. St., Charles G. Holland; Ch., Wm. C. Gattrell; Tr., James T. Holland; Sec., Ella L. Hartschorn; G. K., J. Bradley Zepp; C., Marion W. Haviland; P., Samantha Brown; F., Mary A. Renshaw; L. A. S., Mary A. Gilpin.

PATAPSCO, No. 125, Baltimore county, has elected the following officers for 1891: M., Thomas B. Todd; O., Harry F. Hopkins; Lec., G. S. Lambert; St., G. Thomas Dorrittee; Asst. St., T. Albert Merritt; Tr., G. Stengle; Sec., C. Merritt; G. K., William Green; P., Miss Virginia Schunck; F., Miss Ella R. Jones; L. A. S., Miss Ella M. Todd; C., Mrs. Thomas B. Todd.

Farmers' Meeting.

A meeting of farmers will be held at Pikesville, Baltimore county, under the auspices of Garrison Forest Grange, Wednesday and Thursday, February 11th and 12th. The following gentlemen have accepted invitations to be present and deliver addresses: Hon. Jeremiah Rusk, Secretary of Agriculture; Prof. H. E. Alvord, of the Maryland Agricultural College; Hon. Wm. M. McKaig, member elect to Congress from the Sixth Maryland District; Prof. Milton Whitney, Hon. Frank Brown, Hon. James E. Robinson and Prof. Thomas L. Brunk. At the evening session on Wednesday there will be a stereopticon exhibition by the officers of the Md. Experiment Station. All who are interested in farming are cordially invited to be present.

Brief News Summary.

FOREIGN.—Another conference of leaders of the Irish parliamentary party has been held at Boulogne, France.—The prohibition against American pork by Germany will probably be removed.—In Austria, earthquake shocks have been felt strongly.—The insurgents in Chili are gaining ground, government troops having joined their forces.—Great suffering has been caused in Europe by the cold weather.—Baron Wissmann, German commissioner for East Africa, has suddenly developed signs of insanity, and has been recalled because of his affliction.—Sadullah Pasha, the Turkish ambassador at Vienna, made two attempts to kill himself because of family troubles.—The rigorous weather continues to distress Europe.—The harbor of Toulon is frozen for the first time in history.—Prince Boudouin, heir of Belgium is dead.

GENERAL.—Senator Stanford was re-elected by the California legislature.—Senator Hearst is reported dying.—The Indians asked and were granted permission to send a delegation to the great father at Washington.—The House passed the District of Columbia bill and took up the fortification bill.—A great storm along the Eastern coast prostrated the wires in and around New York City, causing many mishaps.—The

Senate tabled the closure resolution and took up the reapportionment bill, by one majority, six republicans voting with the democrats.—Southern legislatures threaten to refuse to participate in the world's fair if the elections bills is passed.—The naval appropriation bill is \$25,578,629, and was passed in the House.—The revenue cutter Bear is being fitted out as a war vessel at San Francisco.—Judge Pepper, editor of the *Kansas Farmer*, was elected senator to succeed Mr. Ingalls.—Suit has been begun in Washington to compel the Secretary of the Treasury to coin silver rejected at the Philadelphia mint.—George Bancroft, the historian, died in Washington, in his ninety-first year.—King David Kalakaua, Hawaii, died at San Francisco, aged fifty-five years.—Gov. David B. Hill was elected United States Senator by the N. Y. Legislature to succeed Hon. William M. Everts.—Senator D. W. Voorhees was re-elected in Indiana and Senator Platt in Connecticut.—The Secretary of the Treasury, Wm. Windom, dropped dead just after delivering an address at the annual banquet of the Board of Trade and Transportation at New York, January 20th. He was 63 years old, and long represented Minnesota in the House of Representatives and the Senate, and was Secretary of the Treasury under Garfield as well as in the present administration.

MARYLAND.—Collector Marine, of the Baltimore customhouse, imposed fines amounting to \$3,000 on Captains Howard and Turner, of the oyster police steamers McLane, and Thomas and the State of Maryland, for using the steamers to transport passengers for the Baltimore and Eastern Shore Railroad from Bay Ridge to Claiborne.—Census Agent Creager reports that there were 5,688 manufacturing establishments in Baltimore in 1890 as against 3,683 in 1880.—William Hocking, a well-known mining engineer of All-gany county, died at Piedmont, W. Va.—Hyland Benson, aged seventy-one, was killed by a falling tree near Millington, Kent county.—Dr. J. J. Vanderford, of Westminster, Md., died at Stuttgart, Germany.—The store of Ephraim Hassett, near Indian Creek, Dorchester county, Md., was burned.—The mare, Lucy King, which belonged to the late George B. Graham, was sold to C. W. Baker for \$1,100.—Franklin Irving Hance died at his home in Baltimore.—The Baltimore County Court granted a continuance of the Archer bond cases until Monday, March 9.—Attorney-General White filed a bill of equity in the Circuit Court for Harford County against the widow and children of the late Henry W. Archer, claiming the full amount of the State's losses alleged to have been proved for the time from February 2, 1886, to November 18, 1889, covered by the bond of 1886, in which Henry W. Archer was surety.

VIRGINIA.—Major A. H. Drewry has declined the position of president of the Virginia Agricultural Society.—Judge James W. Palmer, of Salem, is dead.—Edward P. Tabb, formerly of Norfolk, died in New York.—W. T. Anderson, a former merchant of Lynchburg, is dead.

Baltimore Markets—January 31.

BREADSTUFFS.

Flour.—Fairly active and steady, with quotations as below:

Western Winter Wheat Super...	\$3 10@3 50
Extra.....	3 70@4 50
" " Family.....	4 00@5 10
Baltimore High Grade Family.....	—@5 55
City Mills Super.....	2 90@3 10
City Mills (Rio brand) Extra.....	5 10@5 25
Rye Flour.....	3 00@4 25
Hominy.....	3 50@3 65
Hominy Grits.....	3 50@3 65
Corn Meal, per 100 lbs.....	1 25@1 50
Buckwheat Meal, new, per 100 lbs.....	2 30@2 40

Wheat.—Market for Southern Wheat firm and in demand, the sales being at 102, 105, 106 and 107 cents, the latter for a small cargo about prime. No. 2 red spot selling at 103 cents, May at 105.

Corn.—Southern firm at 59½@61½ cents for white and 60@61 cents for yellow, 58½@59 cents for May.

Oats.—Fairly steady. Ungraded Southern and Pennsylvania 49@51½ cents; Western white 50½@51½ cents, do. mixed 49@50 cents, stained and inferior 48@49 cents, No. 2 white 51½ cents, and No. 2 mixed 50 cents per bushel.

Rye.—Quiet, with quotations about as follows: Choice 81@82 cents; good to prime 79@80 cents, and common to fair 74@78 cents per bush. Hay and Straw.—In fair demand. Choice Timothy 10@11; good to prime 9½@10; mixed, fair to good, 8½@9; common and inferior 8@9. Clover 8½@9; Cut Hay, choice grades, city standard brands, 12; New York cut 11½@12; mixed grades, cut, 10@11. Rye straw in carloads at 15½@16 for large bales in sheaves, 10.50@11.50 for blocks; Wheat, blocks 7@8; Oat, blocks 6@7.50. Short chaffy stock about 1 per ton less.

At Scales.—Hay—Timothy 7@11, Clover Hay 7@10 per ton. Straw—Wheat 8, Rye 14@16, Oat 9 per ton. Ear Corn, 33.20@34.40 per bbl.

Mill Feed.—Western bran, light, 12@13 lbs., 25.50@26; do. medium, 14@16 lbs., 23.50@24.50; heavy, over 16 lbs., 21.50@22.50, and middlings 23, all on track. City Mills middlings 24 per ton, sacked and delivered.

Provisions.—Quiet. Sugar-pickled Shoulders 5½ cents; smoked sugar-cured Shoulders 6½ cts.; sugar-cured Breasts 7½ cts. Canvassed and uncavvassed Hams, small averages, 10½ cts.; large averages 10 cts. per lb. Meats Pork, old, \$10.50, and do. new \$10.75 per bbl. Lard, best refined, pure, 7½ cts. per lb.

Dressed Hogs.—Quiet, at following quotations: Small and smooth, 4½ cents; rough and heavy, 4¼ cents per lb.

Canned Goods.—In fair demand. Two-pound Peaches, \$2.10; three-pound Peaches, \$2.30; two-pound Tomatoes, 66¢; three-pound Tomatoes, 81¢; two-pound String Beans, 65 cents; Bartlett Pears, \$1.90; Lima Beans, \$1.15.

Potatoes.—Market over stocked. We quote York State and Pennsylvania Burbank and White Star \$1.05; York State and Michigan Rose \$1.10; Dakota Red \$1.10; N. S. and P. E. I. Blue Mercer 85¢; Snow Flake and Chili \$1.05; Holton Rose and Hebron \$1.20; all bushel, \$3.50; 3.75 bbl.

Sweet Potatoes.—The inquiry was good. Hamans were quiet. The quotations were \$2.25 per bbl. North Carolina Hamans \$1.25 per bbl.

Seeds.—In fair demand. Choice to fancy new Western Clover 7½¢; prime 7¼¢; fancy 7½¢; carload. No. 2 6¼¢; fancy 6½¢; as to quality, 6½¢; jobbing 4¼¢; higher. Timothy \$1.35; prime in carload lots, Western, near-by, \$1.10; Flax, sieved, \$1.50; 45 per bushel, as to quality; Orchard Grass \$1.20; 1.30 per bushel; all jobbing 10 cents per bushel higher.

Tobacco.—Maryland—Dull from light receipts. We quote: Common and frosted per 100 lbs. \$1.50; sound common \$2.00; good common, \$4.00; middling, \$6.00; good to fine red, \$9.00; fancy, \$12.00; upper country, \$3.00; ground leaves, \$1.00.

Wool.—Dull and nominal. Good unwashed 22¢; tubwashed 32¢; pulled 36¢; 22 cts. and Merino 18¢; 20 cts. per lb.

LIVE STOCK.

Beef Cattle.—Top grades in fair demand; common cattle dull. We quote: Best Beefes \$4.50; 4.75, those generally rated first quality \$4.25; 4.50, medium or good fair quality \$3.40, and ordinary thin Steers, Oxen and Cows \$2.00 per 100 lbs.

Sheep and Lambs.—Dull. We quote: Butchers' Sheep 3½¢; cents, and a few extra at 5½¢ cents per lb. gross. Lambs 4½¢; cents, and a few extra at 6½¢ cents per lb. gross.

Hogs.—Fairly active. Rough Hogs sell at 4¼¢ cents per lb. net.

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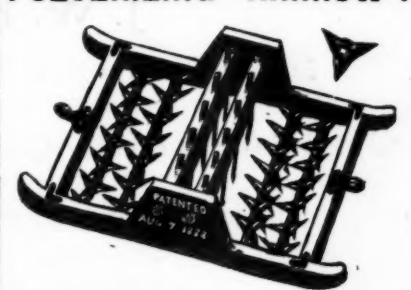
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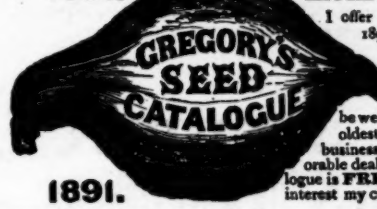
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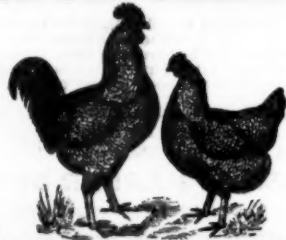
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